

**Decision Notice and Finding
of No Significant Impact
Bangtail Allotment Management Plan
Update**

**USDA Forest Service
Gallatin National Forest
Bozeman Ranger District
Gallatin County, Montana**

September 24, 2009

Responsible Official:

José Castro
District Ranger

For Further Information, Contact:

John Councilman, Project Leader
Bozeman Ranger District
Gallatin National Forest
3710 Fallon Street, Suite C
Bozeman MT 59718
(406) 522-2533

The U.S. Department of Agriculture (USDA) Forest Service prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). The USDA Forest Service is an equal opportunity provider and employer.

Table of Contents

1.1 Introduction	1
1.2 Purpose of and Need for Action	2
1.3 Alternative 3 (EA Appendix 1 – Map 3)	3
1.4 Public Involvement Process and Issues	9
1.5 Description of other Alternatives Studied in Detail	11
1.6 Decision	12
1.7 Rationale for the Decision	13
1.8 Alternatives Eliminated from Detailed Study	19
1.9 Other Findings	19
1.10 Finding of No Significant Impact (40 CFR 1508.27)	20
1.11 Implementation	23
1.12 Administrative Review or Appeal Opportunities	23
1.13 Contact Person for Further Information	25

My selected alternative includes numerous management actions (EA Appendix 2). Several of these management actions will be implemented in 2010 to improve management of the natural resources and to comply with standards and guidelines in the Gallatin Forest Plan (Forest Plan) (1987). These include such things as; changes in grazing systems or pasture rotations, implementation of streambank trampling standards along specific streams to improve stream and riparian conditions, construction of additional water developments to better distribute livestock use and reduce streambank trampling, and implementation of a monitoring plan.

1.2 Purpose of and Need for Action

Several laws direct how resources are managed on National Forests and these relate to the purpose of the proposal. The Multiple Use-Sustained Yield Act of 1960 authorized the Forest Service to manage National Forest System Lands for multiple use and sustained yield of the products and services of the forests. The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) requires the Forest Service to periodically assess the renewable resources of the forests and to develop national-level plans to manage and develop these resources. Next the National Forest Management Act of 1976 (NFMA) restated the direction of Multiple Use Sustained Yield Act and amended the Resource Planning Act to require the Forest Service to develop forest management plans for each national forest.

The Forest Plan was developed and approved in 1987. The Forest Plan (as amended) provides the current approved direction for management of the Gallatin National Forest and includes how livestock are managed and where livestock can be grazed. Overall goals of the Forest Plan are to maintain or improve the forage resource and provide for a small increase in livestock grazing (Forest Plan p. II-1). The Forest Plan also sets forth standards and guidelines that contribute toward achieving these goals and assuring that favorable and sustainable rangeland conditions exist into the future. The Forest Plan divides the Forest into Management Areas and provides resource management direction for each of those areas.

All of the Forest Plan Management Areas in the Bangtail Mountains allow the grazing of livestock with the exception of Management Area 1 which are recreation facilities such as campgrounds. While the other management areas all permit grazing, they do not recommend specific livestock numbers, types of livestock, grazing seasons, or the types of grazing-related management activities that will occur on each allotment. It is therefore the purpose of this proposal to decide those questions while providing the livestock industry the opportunity to graze livestock under permit as directed in the Forest Plan.

This proposal is being considered at this time because of the need to improve the conditions of several resources on the allotments and address any disparities between the Forest Plan standards, and existing management and environmental conditions (Public Law 104-19, Section 504(a) (1994)). An interdisciplinary team (ID Team) of Forest Service resource specialists assigned to evaluate this proposal identified three existing conditions threatening the sustainability of resources on these allotments. The ID Team identified them as priorities needing to be addressed. Livestock grazing can affect all of these conditions (EA Chapter 3.0):

- Reduced Stream Form and Function
- Reduced Riparian Health
- Noxious weed and invasive non-native plant establishment and distribution (also a Forest Service national priority)

1.3 Alternative 3 (EA Appendix 1 – Map 3)

Alternative 3 is based on processes outlined for implementing adaptive management in Nyberg (1999) and Salafsky, et.al. (2001). Alternative 3 identifies a mission statement and a target condition (Salafsky, et.al. 2001). The mission statement and the target condition for livestock grazing are based on a review of the Forest Plan goals (Forest Plan Chapter II pp.1-2), desired future conditions (Forest Plan Chapter II pp. 11-13), and objectives (Forest Plan Chapter II pp.2-6) and public scoping. The Mission Statement and target condition are as follows:

Mission Statement Land Management practices support native terrestrial and aquatic plant and animal life: meet or exceed all legal requirements for water quality; and allow natural ecosystem processes of disturbance and recovery to play a more natural role on the landscape.

Target Condition Livestock grazing strategies protect and restore stream form and function, water quality, and riparian and upland plant communities while contributing to the economic and social well-being of the local ranching community.

Implementing adaptive management involves identifying and prioritizing “threats” to the target condition and the overall mission (Salafsky, et.al. 2001). Section 1.2 above identified three issues on the landscape that need to be addressed. These will be the focus of allotment management under this alternative:

- Reduced Stream Form and Function
- Reduced Riparian Vegetative Health
- Noxious weed and invasive non-native plant establishment and distribution (also a Forest Service national priority)

Next, various factors contributing to these threats were identified. Environmental Assessment table 2.4 and EA Appendix 4 summarize the threats and contributing factors. This step in adaptive

management helped us focus on those social, economic and environmental factors that we can influence with our management decisions.

Management actions

Once the contributing factors were identified the ID Team identified the following list of management actions to address many of these factors. A detailed description of the management actions is included in EA Appendix 2. Appendix 2 also defines the management action, the types of activities taking place required to implement the actions, and a prediction of what the District hopes will be the outcome of implementing each management action. Predictions are essential for tracking progress toward objectives and for evaluating management actions (Salafsky, et. al. 2001). The entire list of management actions includes:

A. Construct exclosures:

B. Implement prescribed fires:

C. Change grazing systems:

D. Decommission roads:

E. Road maintenance:

F. Create or reconfigure pastures:

G. Change the class of livestock:

H. Combine some or all allotments:

I. Change livestock numbers, non use, or removal for resource protection:

J. Instream improvements:

K. Implement updated upland grazing utilization standards:

L. Livestock predation reduction:

M. Control tall larkspur:

N. Change type of fencing:

O. Harden stream crossings:

P. Change trailing routes:

Q. Adjust salt and mineral placement:

R. Noxious weed treatment:

S. Change grazing season:

T. Change allotment boundaries:

U. Share permit administration with permittees:

V. Build or rebuild a fence:

W. Allow for adequate rest after prescribed or wildfire:

X. Make use of unused grass banks:

Y. Suspension of grazing permit:

Z. Bill permittee for unauthorized use:

AA. Change the type of livestock:

BB. Conduct bank stabilization projects:

CC. Implement bank trampling standards:

DD. Construct water developments/water gaps:

EE. Administer grazing permit to standard:

FF. Mechanical treatment:

GG. Pick up old fence:

HH. Close allotment

Table 1. Alternative 3 Implementation of Management Actions. This table displays which Management Actions would be implemented immediately and those most likely to be implemented next. Management Actions are listed in alphabetical order not in order of priority.

Allotment	Threats	Contributing Factors Needing to be Addressed on the Allotment	Implement Management Actions (listed alphabetically)
Canyon Creek	Noxious weed and invasive non-native plant establishment and distribution	Improper livestock distribution Livestock transportation of seed Disturbance of native vegetation	K. Implement upland grazing utilization guidelines**
			P. Change trailing routes*
			Q. Adjust salt and mineral placement*
			R. Noxious weed treatment*
			U. Share permit administration with permittees*
			W. Allow for adequate rest after prescribed or wildfire
			DD. Construct water developments/water gaps*
Stone Creek	Noxious weed and invasive non-native plant establishment and livestock distribution	Improper livestock distribution Livestock transportation of seed Disturbance of native vegetation	EE. Administer grazing permit to standard*
			R. Noxious weed treatment*
			W. Allow for adequate rest after prescribed or wildfire*
			DD. Construct water developments/water gaps*
Bangtail Creek	Reduced Riparian Vegetative Health Reduced Stream Form and Function Noxious weed and invasive non-native plant establishment and livestock distribution	Improper livestock distribution Livestock transportation of seed Disturbance of native vegetation Streambank trampling Recreation	EE. Administer grazing permit to standard*
			GG. Remove unneeded improvements*
			B. Implement prescribed fires**
			C. Change razing systems
			D. Decommission roads*
			E. Road maintenance*
			F. Create or reconfigure pastures*
			H. Combine some or all allotments*
			I. Change livestock numbers
			O. Harden stream crossings**
			Q. Adjust salt and mineral placement*
			R. Noxious weed treatment*
			S. Change grazing season*
			U. Share permit administration with permittees*
			V. Build or rebuild a fence*
			W. Allow for adequate rest after prescribed or wildfire*
			BB. Conduct bank stabilization*
			CC. Implement updated riparian grazing guidelines*
			EE. Administer grazing permit to standard*
			FF. Mechanical treatment *
			GG. Remove unneeded improvements*
Willow Creek	Reduced Riparian Vegetative Health Reduced Stream Form and Function Noxious weed and invasive non-native plant establishment and livestock distribution	Improper livestock distribution Livestock transportation of seed Disturbance of native vegetation Drop in water tables Streambank trampling Streams not in PFC	B. Implement prescribed fires**
			F. Create or reconfigure pastures**
			O. Harden stream crossings**
			Q. Adjust salt and mineral placement*
			R. Noxious weed treatment*
			A. Construct exclosures*
			C. Change grazing systems*
			H. Combine some or all allotments*
			I. Change livestock numbers*
			J. Instream improvements*
			M. Control tall larkspur*

Decision Notice and FONSI Bangtails Allotment Management Plan Update

Allotment	Threats	Contributing Factors Needing to be Addressed on the Allotment	Implement Management Actions (listed alphabetically)
			P. Change trailing routes* S. Change grazing season** U. Share permit administration with permittees* V. Build or rebuild a fence* W. Allow for adequate rest after prescribed or wildfire** BB. Conduct bank stabilization* CC. Implement updated riparian grazing guidelines* DD. Construct water developments/water gaps* EE. Administer grazing permit to standard* FF. Mechanical treatment* II. Adjust permit for on-off use*
Jackson Creek	Reduced Riparian Vegetative Health Reduced Stream Form and Function Noxious weed and invasive non-native plant establishment and livestock distribution	Livestock transportation of seed Disturbance of native vegetation	A. Construct exclosures** C. Change grazing systems** E. Road maintenance* J. Instream improvements** K. Implement updated upland grazing utilization standards* R. Noxious weed treatment* P. Change trailing routes* Q. Adjust salt and mineral placement* V. Build or rebuild a fence* U. Share permit administration with permittees* W. Allow for adequate rest after prescribed or wildfire* X. Make use of or create grass banks* BB. Conduct bank stabilization projects* CC. Implement updated riparian grazing guidelines* DD. Construct water developments/water gaps* EE. Administer grazing permit to standard* FF. Mechanical treatment* GG. Remove unneeded improvements*

*Implement immediately.

**Implementation likely to happen next based on recommendation by the AMIT.

Objectives: Objectives are checkpoints used to help managers track progress toward achieving the target condition (goal) (Salafsky, et. al. 2001). Each objective has a “Definition of Positive Trend” described in Chapter 2.9 of the EA that will help me determine if we are on track to meet objectives by the desired dates. Determination of the trend goes hand in hand with the monitoring plan (EA Appendix 3).

1. Attain Annual Operating Plan compliance from permittees by 2011 (Appendix 3, Monitoring Item 3).
2. Maintain those riparian systems currently in properly functioning condition. Establish a positive trend toward full restoration by 2020 for those systems that are functioning-at-risk or are non-functioning. Bring all streams into fully functioning condition by 2030 (EA Appendix 3, Monitoring Item 3, 4, 9, 10, and 11 Appendix 3).

3. By 2018 establish a positive trend of maintaining and restoring native plant communities across the landscape (EA Appendix 3, Monitoring Item 2, 3, 4, 10, and 11).
4. Reduce established weed populations by 50 percent, eliminate infestations of new weed species, and maintain weed-free areas by 2018 (EA Appendix 3, Monitoring Item 3, 4, 9, 10, and 11).

Monitoring Plan (EA Appendix 3)

Appendix 3 in the EA contains the Monitoring Plan for Alternative 3. Numerous potential monitoring items were considered with the following list being those items the ID Team determined will provide us the best information based on their responsiveness to management actions, cost, practically, and also what sort of temporal and spatial time scale they represent Nyberg (1999). ***Bolded italicized items*** below will be monitored starting with implementation of this decision. The other monitoring items will be monitored depending upon funding and need as determined by the Adaptive Management Implementation Team.

- | | |
|--|---|
| 1. Erosion | 8. Fish and amphibian population structure |
| <i>2. Upland livestock distribution</i> | <i>9. Stream Channel form and function</i> |
| <i>3. Compliance with annual operating plan</i> | <i>10. Streambank disturbance</i> |
| <i>4. Number of functioning range improvements</i> | <i>11. Riparian vegetation health</i> |
| 5. Trend in Aspen stand structure, function, and composition | 12. Macro invertebrates |
| <i>6. Trend in Upland Plant community composition</i> | 13. Bird community composition |
| <i>7. Redd trampling</i> | <i>14. Economic Impacts on the permittee</i> |

Adaptive Management Implementation Team (AMIT)

Alternative 3 includes the formation of an interdisciplinary team to oversee the implementation of adaptive management. This Team will function in place of the Forest's Best Management Practices (BMP) Review Team that meets periodically to review project implementation and monitoring on Forest activities including grazing allotments. Based on the results of monitoring and comparing these results to specific objectives, the AMIT will provide recommendations to me about when to implement additional management actions. Based on their findings I will then decide which management action(s) to implement.

Composition of the AMIT may vary depending upon the issues being reviewed that year but will typically include the Gallatin National Forest Ecologist/Ecosystem staff representative, District Rangeland Management Specialist, District Resource Assistant, District Wildlife Biologist, District Fisheries Biologist, Forest Soil Scientist, Forest Hydrologist, District Ranger, and grazing permittee representation. In addition, specialists could be assigned as needed (Regional Ecologist, County Extension Agent, Gallatin County Weed District Supervisor; scientists from the Forestry Sciences Lab, and scientists from Montana State University).

Mitigation under Alternative 3

I intend to implement all required and recommended mitigation included in my chosen Alternative 3. One of the Forest Service's priorities is to address the invasive species problem. My decision to continue to allow livestock grazing on these allotments includes among other things mitigation to reduce and prevent the expansion of invasive plants.

Noxious Weeds

Forest Service Manual 2081.2 includes the following requirements and recommended control and prevention measures.

Required:

- (1) Ensure weed prevention and control are considered in management of all grazing allotments.
 - (a) Include a weed risk assessment in environmental analyses for rangeland projects.
 - (b) When other plans do not already address noxious weeds, include practices and control measures in Annual Operating Plans.

- (2) Minimize ground disturbance and bare soil.
 - (a) Revegetate, where applicable, bare soil from grazing activities according to the following:

Revegetate disturbed soil, except the travel way on surfaced roads, in a manner that optimizes plant establishment for that specific site, unless ongoing disturbance at the site would prevent weed establishment. Use native material where appropriate and available. Use a seed mix that includes fast, early season species to provide quick, dense revegetation. To avoid weed contaminated seed, each lot must be tested by a certified seed laboratory against the all State noxious weed lists and documentation of the seed inspection test provided.

Use local seeding guidelines for detailed procedures and appropriate mixes. Use native material where appropriate and available. Revegetation may include planting, seeding, fertilization, and weed-free mulching as indicated by local prescriptions.

Monitor and evaluate success of revegetation in relation to project plan. Repeat as indicated by local prescriptions.

- (b) Check areas of concentrated livestock use for weed establishment and treat new infestations.
- (3) Minimize transport of weed seed into and within allotments.
 - (a) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that stay on the roadway, traveling frequently in and out of the project area.)
 - (b) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders (as determined by the Forest Weed Specialist).
 - (c) Straw used for road stabilization and erosion control would be certified weed-free or weed-seed-free.

Recommended:

- (1) Transport of weed seed into and within allotments should be minimized.
 - (a) Avoid driving vehicles through off-road weed infestations.
 - (b) Feed certified weed-free feed to livestock for several days prior to moving them onto the allotment to reduce the introduction of new invaders and spread of existing weed species. Consider using transitional pastures when moving animals from weed infested areas to the National Forest. (Transitional pastures are designated fenced areas that can be logistically and economically maintained.)
 - (c) Consider excluding livestock from sites with new invaders or treat new invaders in these areas before entry by livestock.
- (2) Maintain healthy desirable vegetation that is resistant to noxious weed establishment.
 - (a) Consider managing forage utilization to maintain the vigor of desirable plant species as described in the Allotment Management Plan.
 - (b) Minimize or exclude grazing on restoration areas until vegetation is well established.

(Responsible Official: District Resource Assistant)

Heritage Resources

A heritage resource survey will be conducted prior to any ground disturbing activities (Responsible Official: Forest Archeologist)

Sensitive Plants

A sensitive plant survey will be conducted prior to the construction of allotment improvements for such things as fences and water developments. A sensitive plant survey has been conducted on the allotments with no plants being found (Project File – Vegetation) (Responsible Official: District Rangeland Management Specialist).

1.4 Public Involvement Process and Issues

Public Involvement

One of the first steps in conducting an environmental analysis is to determine the relevant issues (40 CFR 1501.7) which then become the focus of the analysis. They guide the evaluation of the environmental effects, and help me decide on a preferred alternative. Issues are identified through a process called “scoping”. Scoping for this project was conducted in October and November of 2008 when 72 letters were mailed to Federal, State, and local governments, members of the public and private non-profit organizations requesting comments on the proposal. Four letters were received in response to the scoping effort. Once the EA was completed a legal notice was published in Bozeman Daily Chronicle on July 27, 2009 initiating a 30 comment period on July 28, 2009.

Only one response letter was generated from the public during the 30 comment period on the EA. From this I conclude there is a fairly low level of controversy related to proposal in general. Our

response to this letter is contained in the Appendix to this Notice of Decision and Finding of No Significant Impact.

Non Relevant Issues from Federal, State, Local Government, and the Public (EA Chapter 2.3)

The National Environmental Policy Act (1969) provides for the identification and elimination from detailed study issues which are not relevant or which have been covered by prior environmental review. This narrows the discussion of those issues to a brief statement as to why they will not have a significant effect on the human environment or by providing reference to their coverage elsewhere (40 CFR 1501.7(3)). The following issues were evaluated but found not to be relevant to decisions regarding livestock grazing on the five allotments (Project File-Scoping, Content Analysis).

Issues dismissed in Chapter 2.3 of the EA as not relevant to the proposal:

- Amphibians
- Soil Disturbance
- Elk/Livestock Conflict
- Water Quality
- Potential Effects on Threatened and Endangered Canada Lynx
- Potential Effects on the Sensitive Grizzly Bear, Gray Wolf, Bald Eagle, Wolverine, Trumpeter Swan, Black-backed Wood Pecker, Peregrine Falcon, Western Big-eared Bat, Flammulated Owl and Harlequin Duck
- Potential Effects on the Pine Marten, a Management Indicators Species
- Sensitive Plants
- Conflicts Between the Public and Livestock Grazing
- The Bangtail Botanical and Paleontological Special Interest Area
- Other Non-significant Issues

Based on my eight years on the District and based on my dozens of visits to the Bangtails and working on resource issues there, I have found that resource management in the area does not generate much public debate. This is certainly true compared to every other area of the District. Also, based on my own observations and after reviewing the reports provided by the ID Team for this project, critical resource concerns are few. I think this explains why there were not many relevant issues associated with this environmental analysis.

Relevant Issues from Federal, State, Local Governments, and the Public

The initial scoping effort, and input from the project's interdisciplinary team determined the following issues to be relevant to the analysis. These were used to evaluate the environmental effects of each alternative (EA Chapter 4.0). A detailed description of each issue is contained in EA Chapter 2.4.

Issue 1): Livestock grazing could affect stream channel form and function and habitat for aquatic species

Issue 2) Livestock grazing could affect terrestrial management indicator species and the overall diversity of animal life.

Issue 3) Livestock grazing could affect terrestrial plant life including: the composition and successional development of riparian and upland plant communities; the presence of invasive nonnative plants and the overall diversity of plant life.

Issue 4) Livestock grazing on public lands and the associated costs could affect livestock operators and the grazing fees collected from permittees may not provide a positive return to the Federal Government.

1.5 Description of other Alternatives Studied in Detail

The relevant issues were used to help generate the range of Alternatives. Alternative 1 would not graze any livestock. A no grazing alternative is required as Forest Service policy when conducting environmental assessments on allotments. This alternative also responds to the issues related to the adverse effects of livestock grazing. Alternative 1 helped me compare what the effects would be if livestock were either removed or allowed to remain on the allotments.

Another alternative was also evaluated. It was called the “proposed action” and was sent out to the public during scoping. It was eventually called Alternative 2. Because it did not propose any changes in the current grazing strategies and was also called the “No Action” alternative. Evaluation of a no action alternative is required under the National Environmental Policy Act (1969). The “proposed action” alternative seldom ends up being the preferred alternative and this analysis was no exception.

Once the issues are identified the “proposed action” was modified and a new alternative named Alternative 3 was formulated. This alternative proposed taking an adaptive management approach to managing livestock in the area. As my selected alternative, Alternative 3 was designed to respond to all of the relevant issues.

Alternative 1 –No Grazing

The No Grazing Alternative proposed that no livestock grazing occur on any of the allotments. This alternative responded to some of the negative issues related to livestock grazing such as impacts to riparian areas, adverse changes in plant communities, economics, and effects on wildlife. Other activities not related to livestock grazing will continue to be permitted within the area. Activities associated with this alternative included removing fences and water developments that would no longer be needed for livestock management on the National Forest. Environmental Assessment Appendix 1, Map 1 displays the locations of structural improvements that would be removed under this alternative.

Alternative 2 (No Action, EA Appendix 1- Map 2)

This alternative would have kept the grazing strategies as they currently are today. Table 2 displays a summary of each allotment. Activities that annually occur include: maintenance and construction of fences and water developments; installation of cattle guards; annual permit administration including measuring utilization in riparian and upland areas; reviewing improvements; meetings with permittees; monitoring of the placement of mineral supplements with consideration to sensitive resources; and billing for livestock use. Noxious weed treatment continues under Alternative 2 as proposed. Environmental Assessment Appendix 1, Map 2 displays Alternative 2.

Table 2. Grazing Under Alternative 2. This table displays the grazing strategies for the five grazing allotments in the Bangtails under the no action Alternative.

<i>Allotment Name</i>	<i>Type of Grazing System</i>	<i>Permitted Livestock Numbers Under Term Permits¹</i>	<i>Permitted Livestock Numbers Under On/Off Permits¹</i>	<i>Permitted Livestock Numbers Under Private Land Permits²</i>	<i>Season of Use</i>
Stone Creek	Deferred	14	0	90	7/1-9/30
Canyon	Deferred	104	0	-	7/1-10/5
Bangtail	Deferred	135	0	15	7/1-9/30
Willow Creek	Deferred	117	83	-	7/6-10/5
Jackson Creek	Deferred	111	0	107	7/8-9/22

¹ Indicates cow-calf pairs unless otherwise stated. Cow/calf means each cow is assumed to have one calf.

² This is the number that the private land portion of the allotment is able to support in addition to those on the National Forest. Private land is grazed in common with the National Forest System lands.

Mitigation Common to the action alternatives:

The same mitigation included in Alternative 3 would have been implemented under Alternative 2.

1.6 Decision

Based on the rationale for the decision described below, I have made a comparison of alternatives and have decided to implement Alternative 3 as described in the EA with no exceptions or modifications. My selected alternative includes a detailed monitoring plan in Appendix 3 of the EA. Monitoring is key to successful implementation of adaptive management and I am committed to seeing that the Monitoring Plan is implemented. The ID Team used numerous factors to help them decide which monitoring items to incorporate including considerations of cost and practicality. These considerations will go a long way in making sure the Monitoring Plan can be implemented as proposed. Monitoring items to be implemented starting in 2010 are identified as well are items that can be implemented in later years depending upon funding and needs.

As part of my decision I have decided to fully implement all the mitigation included under Alternative 3 that is both recommended and required.

My selected alternative includes the formation of an Adaptive Management Implementation Team to oversee and implement monitoring and to also interpret the results and make recommendations to me for management actions. The team includes participation of the permittees along with the opportunity to have scientists and researchers also participate. This will go a long way in sharing knowledge and improving management.

1.7 Rationale for the Decision

Scope of the Decision

The scope of this decision is limited to those management actions and activities associated with livestock grazing on the Canyon Creek, Jackson Creek, Stone Creek, Willow Creek, and Bangtail Creek grazing allotments in the Bangtail Mountains. A list of these management actions and activities is included in the EA in Appendix 2.

Decision Criteria

I have reviewed the direct, indirect and cumulative effects analyses for all actions proposed in the EA. I have met with various interdisciplinary team members on the content and findings of various analyses and information pertinent to this project. I have also considered comments received from the public and other agencies. My rationales are presented in the following sections. The criteria I used in reviewing the Alternatives and formulating my decision were:

- The degree to which each alternative met the purpose and need for action
- The degree to which each alternative resolved significant issues

The Degree to which each Alternative Met the Purpose and Need

The purpose of this project is to decide specific livestock numbers, types of livestock, grazing seasons, or the types of grazing-related management activities that will occur on each allotment while at the same time providing the livestock industry the opportunity to graze livestock under permit all in compliance and as directed in the Forest Plan.

This proposal is being considered at this time because of the need to improve the conditions of several resources on the allotments and address any disparities between the Forest Plan standards, existing management, and environmental conditions (Public Law 104-19, Section 504(a) (1994)). The ID Team identified three existing conditions threatening the environmental integrity of the Bangtail Mountains that are priorities needing to be addressed on these allotments (EA Chapter 2.0):

1. Reduced Stream form and Function
2. Reduced Riparian Vegetative Health
3. Invasive Nonnative Plant Species

My selected Alternative 3 sets objectives to improve the conditions related to these three priority items along with a timeline for meeting the objectives. The Alternative also implements a monitoring plan to check management progress and to provide feedback to land managers about how well management strategies are working. An interdisciplinary team (AMIT) will oversee implementation of Alternative 3 that includes participation of the permittee and others. This team will have the flexibility under adaptive management to implement additional management actions as needed and as approved by me. Not only will this keep us on track but the management actions included in EA Appendix 2 will provide options for management under unpredictable events such as catastrophic fires, etc. I believe with these in place true progress will be made toward addressing these priority issues and improving overall landscape health.

Alternative 1 does not provide the opportunity for livestock grazing as directed in the Gallatin Forest Plan and would eliminate grazing altogether in the five allotments. This would certainly not be consistent with direction in the Forest Plan and based on the analysis provided in the EA I see no compelling reason to remove grazing. Environmental concerns related to grazing can be mitigated satisfactorily while still providing economic benefits to the local livestock industry. Alternative 2 does not meet the purpose of the project since it does not improve current environmental conditions on the allotments. For example, no additional measures are taken to improve stream form and function or overall riparian health.

The degree to which each alternative resolves significant issues

Issue - Livestock grazing could affect stream channel form and function and habitat for aquatic species

My selected Alternative will implement numerous measures to resolve this issue. One of the most important measures will be the implementation of streambank trampling standards starting in 2010. Then, if monitoring indicates additional measures are needed, a whole toolbox of management actions will be available including such options as; fencing, changing grazing seasons, pasture management, etc. (EA Appendix 2). Also, long-term monitoring sites have been established on streams to track the implementation and effectiveness of management actions and progress toward goals (EA page 3-10, table 3.7). Under Alternative 3, all 13 degraded stream segments that are thought to be entirely related (six) or partially related (seven) to livestock grazing are expected to recover or begin recovery. To make sure we stay on track, an Adaptive Management Implementation Team will provide interdisciplinary reviews that include opportunities for participation from a wide range of people with various interests and expertise.

Alternative 3 would meet all laws, regulation, and policy described in the Affected Environment section in this document (EA page 4-11). For example, Montana water quality standards will be met under Alternative 3. Alternative 3 is consistent with the State of Montana Water Quality Act as well as other applicable laws policies, and the Gallatin Forest Plan (USDA 1987). Specific Montana water quality standards that will be met include: Administrative Rules of Montana 17.30.623 (1), which requires that B1 waters after conventional treatment be suitable for growth and propagation of salmonid fishes and associated aquatic life; and, 17.30.623 (2) (f) that does not allow increases above naturally-occurring concentrations of sediment that would render the waters harmful to public health, recreation, safety, livestock, fish or other wildlife.

Alternative 1 would not graze livestock on the five allotments but is consistent with laws, regulation, policy, and Forest Plan direction for hydrologic resources including: water quality requirements for B-1 streams (Montana DEQ (2003a) in ARM 16.20.604); the Forest Plan direction for management of riparian areas (EA pages 4-10, 4-46, and table 4.8); and, the Forest Plan monitoring requirements would be met for all stream segments in Alternative 1 (EA page 4-10). Also, Alternative 1 is consistent with the State of Montana Water Quality Act as well as other applicable laws and policies, and the Gallatin Forest Plan (USDA 1987). Best management practices are and would continue to be employed. Specific Montana water quality standards would be met (EA pages 4-10). Alternative 1 does a good job of recovering stream form and function and the general health of riparian areas. Compared to Alternatives 2 and 3, this alternative does a better job of maintaining and recovering stream form and function and aquatic habitat.

Under Alternative 2 (No Action) the five allotments would be grazed the way these allotments are today with the same grazing standards, animal unit months (AUM's), livestock class, fences and water developments. I did not chose Alternative 2 because: several stream segments would not meet Forest Plan direction related to Stream Channel Stability departure (Pfankuch 1975); the streambank degradation resulting from livestock impacts on the National Forest would not fully recover since grazing would not change; and, the alternative does not go far enough to improve riparian conditions in general. Alternative 2 would not meet all laws, regulations, and policies listed in the Affected Environment section as related to stream channel form and function on the Bangtail Creek, Willow Creek, and the Fleshman Creek portion of the Jackson Creek Allotments (EA page 4-11). It is also less responsive to the intent of the Memorandum of Understanding and Conservation Agreement for Westslope and Yellowstone Cutthroat Trout in Montana (MDFWP 2007). This is because I feel Alternative 2 does not go far enough to restore riparian systems where problems have been inventoried.

Out of all the alternatives, Alternative 3 does a good job of resolving issues related to stream form and function and aquatic habitat. It meets all the laws and regulations plus, implements long-term monitoring. I believe it will put streams on track to full recovery. This is especially true since specific objectives have been identified and timeline to meet those objectives is identified. While Alternative 1 would recover stream form and function more rapidly, I see no overwhelming reason to exclude livestock as that alternative would do. Alternative 2 would perpetuate existing stream form and function problems and provides little opportunity for changes in management.

Issue - Livestock grazing could affect terrestrial management indicator species and the overall diversity of animal life

Terrestrial Life:

Analyses for relevant terrestrial species are contained in EA Chapter 4.2. As far as threatened or endangered species (T and E), Chapter 2.3 of the EA documents this action will have no effect and therefore there is no need for consultation with the USFWS for this project. While all the alternatives have the same measurable affect on T and E species, I would like to note that deciding to graze livestock under my selected Alternative 3 will provide additional flexibility under adaptive management to address potential unforeseen future listings under the Endangered Species Act.

Table 2.11 in the EA summarizes the effects on sensitive species relevant to this analysis. Only Alternative 2 was found to have a possible impact on individuals or their habitat. Alternative 1 and 3 have no impact.

There is an extensive evaluation and analysis in the EA related to migratory birds (EA Chapters 3.3 pages 3-22 through 3-30). Alternative 2 (No Action) would have the greatest adverse impacts to migratory birds, since no specific actions are taken to reverse existing habitat problems or to reduce potential future impacts associated with current grazing practices. No improvement in riparian conditions under Alternative 2 has implications on wildlife in general but especially migratory birds (EA page 4-20). My selected alternative will improve migratory bird habitat over existing conditions by taking proactive measures to protect and restore riparian areas. Alternative 1 would have the most benefits to migratory bird species on National Forest lands in Bangtail Mountains since it would completely remove livestock use and their associated impacts from the landscape in the project area.

All Alternatives considered were consistent with laws, regulations, and policy. However, Alternative 2 (No Action) is less responsive to Forest Plan direction regarding migratory bird habitat management (Forest Plan Chapter III-19)

All the alternatives are consistent with applicable laws, regulations, policy and direction for big game habitat management. Livestock operations have for the most part been compatible with big game management goals in the Bangtail Mountains (EA Chapter 4.2.2.1). My selected alternative has merit for improving livestock use to facilitate better habitat management for elk. Alternative 3 moves the landscape toward more native plants communities in the uplands and in riparian areas. This would benefit big game and migratory bird species.

Impacts on wildlife are low compared to many projects and this is indicated in the EA. No threatened or endangered species are affected. Therefore, no consultation was need with the U.S. Fish and Wildlife Service. Only Alternative 2 would have potential effects on the sensitive big-eared bat, flammulated owl and goshawk, and none of the wildlife issues in general appear to be insurmountable. Alternatives 1 and 3 do the best job of addressing wildlife issues.

Aquatic Life:

One of the potential adverse effects is related to degradation of aquatic habitat. However, numerous management actions are included in my selected alternative that will address this issue. As mentioned above under my discussion on stream form and function, actions will be implemented to restore non-functioning and functioning at risk stream reaches.

My selected alternative meets all applicable Forest Plan goals, objectives and standards for coldwater biota, sensitive species and Management Indicator Species (MIS) and the intent of the Memorandum of Understanding and Conservation Agreement for Westslope and Yellowstone Cutthroat Trout in Montana (MDFWP 2007). This alternative also meets the implementation strategy for the Implementation of the 1999 Westslope Cutthroat Trout Conservation Agreement/MOU within the Upper Missouri River Basin (Powell 2002).

Alternatives 1 and 2 are similar with one exception. Both meet all applicable Forest Plan goals,

objectives and standards for coldwater biota, sensitive species and management indicator species (MIS) and the intent of the Memorandum of Understanding and Conservation Agreement for Westslope and Yellowstone Cutthroat Trout in Montana (MDFWP 2007). They also meet the strategy for the Implementation of the 1999 Westslope Cutthroat Trout Conservation Agreement/MOU within the Upper Missouri River Basin (Powell 2002). The one exception is Alternative 2 does not reduce livestock-related bank trampling along reaches of several streams in the area.

Based on my review of the findings in the EA Chapter 4.2.1.1, I conclude that while Alternative 1 results in the least amount of adverse effects on aquatic species there are no adverse effects related to Alternative 3 that are not resolved to my satisfaction. I did not choose Alternative 2 because it leaves unresolved issues relating to aquatic life and overall health of riparian systems.

Issue - Livestock grazing could affect terrestrial plant life including: the composition and successional development of riparian and upland plant communities; the presence of invasive nonnative plants and the overall diversity of plant life.

Chapter 4.2.3 in the EA documents effects on plant life. One of the most important issues we face as land managers is the issue of non-native invasive plants. Regardless of which alternative is implemented all result in some amount of noxious weeds. Even if livestock are not grazed on these allotments, the District will still need to suppress weeds in the Bangtail Mountains. This is because cattle are not solely responsible for the problem; only a contributing factor. In other words, there will always be weeds. The one big difference between Alternative 1 (No Grazing) and Alternatives 2 and 3 is the presence of cattle as a pathway for weed establishment and movement. It is not possible to exactly quantify how much grazing versus no grazing influences the weed problem. However, it is apparent from the weed risk analysis provided in the EA that livestock play an important role (EA Chapter 4.2.3.3). As the alternatives relate to weeds, Alternative 1 would do the best job of removing livestock as a weed transportation and establishment vector. Alternative 3 does the second best mainly because of its formal monitoring plan and objectives related to upland and riparian vegetative health.

Chapters 4.2.3.1 and 4.2.3.2 in the EA document the findings related to riparian and upland vegetation. Alternative 1 removes livestock from the uplands and riparian areas. While I can conclude from the analysis that removing livestock from the riparian areas would improve conditions, there is some evidence that removing livestock might actually result in poorer upland conditions because of reduced nutrient cycling and disturbance. In fact in some areas, grazing has been shown to improve forage quality (EA page 4-32). Also, there is some literature documenting that site characteristics might actually play a more important role than grazing in plant species diversity (Curtain 2002). From this documentation, I conclude that there is no overwhelming reason to exclude livestock from the uplands and there may even be some beneficial reasons related to nutrient cycling and plant diversity. Because Alternative 3 includes substantial mitigations related to non-native plants and because it goes a long way to recover riparian systems, I conclude that grazing does not threaten the diversity of plant life in this area.

According to the EA, one unknown with Alternative 1 is whether the closing of livestock allotments will result in private landowners concentrating grazing use on their own lands to compensate for

lost forage on public lands. This could lead to declining plant community health on adjacent private lands.

Alternative 2 will have more potential for effects on uplands since less emphasis is put on controlling livestock use and there is no formal monitoring plan. Compared to the other alternatives, Alternative 3 seems to provide the best balance of resolving topics related to this issue while still providing opportunities for livestock grazing as directed in the Forest Plan. I believe with the monitoring plan in place and an interdisciplinary team assigned to implement the process of adaptive management, riparian and upland plant communities will improve.

Issue - Livestock grazing on public lands and the associated costs could affect livestock operators and the grazing fees collected from permittees may not provide a positive return to the Federal Government.

Chapter 4.2.4.1 of the EA contains the economic analysis. Clearly Alternative 3 is the most costly to implement from a purely economic standpoint. Unfortunately, dollars generated from the Federal grazing program is decided by Congress and there is no way to predict if fees will increase to offset costs of the program. If fees were increased the economics of Alternative 3 will become more favorable. However, I believe the other factors mentioned in the analysis outweigh the cost of implementing the grazing program.

Rapid development in the Gallatin Valley and adjacent areas will continue. As documented in the EA the outlook around Bozeman is continued land sales, subdivisions and development. There have been several land sales adjacent these allotments over the last several years. While no subdivisions are proposed at this time, the land ownership is becoming more fragmented with the potential for losses in open space. The loss of open space has been identified as a threat to the ecological health of National Forest System Lands (<http://www.fs.fed.us/projects/four-threats/>). Organizations working to secure conservation easements in the Bozeman area have been successful but can only do so much (EA pages 4-39, 4-30).

Alternatives 2 and 3 provide local ranches the opportunity to continue their operations. My selected alternative will be the better of the two because it provides more oversight of the resources and flexibility in allotment management and is geared more toward ensuring sustainable grazing practices over the long-term.

Alternative 1 could result in the loss of some ranching operations or could at least substantially reduce incomes and force ranchers to seek an income elsewhere. Choosing Alternative 1 would make all the ranch operations using these allotments less profitable and potentially unprofitable. At least some forage would have to come from other sources. This might mean the permittees would have to bid on higher priced pastures and incur the cost of transporting livestock. Alternative 1 may result in ranchers selling their land. There may be some incremental cumulative loss to the livestock industry as a whole if several of the permittees are not able to continue their operation under the no grazing Alternative. On a larger scale and throughout the State as more and more livestock operations become uneconomical a continued reduction in this segment the State's economy is expected (GAO 2005).

If some or all of the ranches associated with these allotments went out of business it is not anticipated there would be large direct local economic effect on the Bozeman area. The local economy is not as dependant upon agriculture as it once was. There may be some minor direct and indirect effects related to those persons employed in agricultural based industries in both Gallatin and Park Counties. Regardless, Alternative 1 would have a huge impact on the livelihood of permittees grazing these allotments.

The costs of maintaining these areas as allotments would continue to increase under Alternatives 2 and 3. Without some resolution of the grazing fee issue no change in the predicted Present Net Values in the EA on table 4.6 is anticipated. However, these Alternatives and particularly Alternative 3 will contribute most to the local livestock industry and cumulatively to the State's agricultural economy.

1.8 Alternatives Eliminated from Detailed Study

Several alternatives were considered but eliminated from detailed analysis. Reasons for dismissing an alternative can include not meeting the purpose and need; not meeting CEQ (NEPA) guidelines of being reasonable; feasible, and viable; not differing substantially from the other alternatives being analyzed in detail; being beyond the scope of the analysis; and/or not complying with current laws, regulations, policies, or Forest Plan direction. Discussions relating to these alternatives are contained in Chapter 2.6 of the EA.

- Close Some Allotments and Leave others Open:
- Implement Bank Alteration Standards on all Streams:
- Immediate Fencing of Riparian Areas:
- Reductions in Livestock Numbers:

1.9 Other Findings

Table 4.8 in the EA displays a compliance check for other laws, regulations and policies.

Applicable Forest-wide goals (Forest Plan Chapter II-1, 2)

One of the goals included in the Forest Plan is to "Provide for a small increase in livestock forage." My selected alternative will not immediately increase forage and that is not identified as a goal. It will however at least provide the opportunity to increase forage if monitoring indicates prescribed fire or other management actions will be beneficial to vegetative health.

Applicable forest wide objectives (Forest Plan Chapter II-4,5)

A Forest-wide objective is to "maintain or enhance the range environment and to provide for increased AUMs." While Alternative 3 maintains and enhances the range resources it does not have an objective of increasing AUMs. It will at least provide the opportunity to increase AUMs if monitoring indicates it would result in improved environmental conditions but no increase is foreseeable at this point.

Desired Future Conditions at the end of the First decade: (Forest Plan Chapter II-12 and 13)

According to the Forest Plan, “Livestock grazing is expected to increase slightly in the first decade. This increase will be accomplished through more intensive management on existing allotments and possible initiation of stocking on a few new allotments. This increase could be from 43,000 AUMs to 44,900 AUMs (Forest-wide) and will be accomplished to protect or enhance other resource values.” Under my selected Alternative there might be a chance that AUMs could increase if management actions indicate that an increase would contribute toward improving the overall environmental health of an area. However, it is unlikely that would be prescribed any time in the near future.

Applicable Forest-wide standards (Forest Plan Chapter II-18-20, and 23)

My selected Alternative is in compliance with all applicable Forest-wide standards (EA table 4.8).

Laws and Policies

My selected Alternative is in compliance with all applicable Laws and Policies (EA table 4.8).

Environmental Justice and Civil Rights:

Executive Order 12898, issued in 1994 ordered Federal Agencies to identify and address any adverse human health and environmental effects of agency programs that disproportionately impact minority and low-income populations. At this time, no minority or low-income communities have been identified in south central Montana. This project does not disproportionately impact any human populations. The Civil Rights Act of 1964 provides for nondiscrimination in voting, public accommodations, public facilities, public education, federally assisted programs, and equal employment opportunity. Title VI of the Act, Nondiscrimination in Federally Assisted Programs, as amended (42 US. C. 2000d through 2000-d6) prohibits discrimination based on race, color or national origin.

While the alternatives may have differing effects on wildlife and fish, as described in EA Chapter 4, none of the alternatives will alter opportunities for subsistence hunting and fishing by Native American tribes. Tribes holding treaty rights on the Gallatin National Forest have had the opportunity to provide comments on this project but did not raise any concerns.

Consistency with Forest Service Natural Resource Agenda:

My decision furthers the USDA Forest Service Natural Resource Agenda by providing for healthy watersheds and promoting vegetative conditions that maintain biodiversity and sustainable forest ecosystems.

1.10 Finding of No Significant Impact (40 CFR 1508.27)

I have determined from thorough review of the Bangtail Allotment EA and Project File that my decision is not a major federal action that would significantly affect the quality of the human environment. Therefore, an Environmental Impact Statement is not needed. This determination is based upon review of the following criteria:

1. Impacts that may be both beneficial and adverse.

Implementation of the Adaptive Management Alternative (Alternative 3) would continue grazing opportunities on intermingled National Forest and private land within the Bangtail Allotments. My decision incorporates adaptive management direction to address changing livestock management concerns. Alternative 3 has been designed to be responsive to the effects of grazing on the various resources present within the allotment boundaries. Provisions are included to adjust management requirements/strategies to be responsive to the needs of the resources affected. As discussed in the EA, (Chapter 4) there are no significant adverse impacts associated with this decision. This decision will allow cattle grazing to continue, having benefits to livestock operations that make use of this forage, while improving ecological conditions on the allotment.

2. The degree to which the proposed action affects public health or safety.

Livestock grazing in the Bangtail Mountains has occurred for over a century. During this time, there have been no documented accounts of any general safety or health related issues related to livestock grazing. For this reason, I conclude that continuing cattle grazing on the allotments under the conditions stated in my decision will not have a significant impact to public health or safety.

3. Unique characteristics of the geographic area.

The 3,366 acre Bangtail Botanical and Paleontological Special Interest Area (Bangtail SIA) was established by acting Regional Forester Kathleen A. McAllister on June 15, 2007. The purpose for the Bangtail SIA is to provide long-term protection to an area for scientific research opportunities on mountain meadow and sub-alpine ecosystems, and to provide research sites for important paleontological resources of North America (Bangtail SIA EA Chapter 1.1). Based on the analysis documented in the Bangtail SIA EA in Chapter 4.4.2, no changes are proposed in the level, duration or timing of livestock grazing. Therefore, the establishment of the area as a special interest area will not directly affect the grazing of livestock including the operating costs to the permittee. It is possible that if large study areas are fenced there could be some minor amount of reduction for forage for livestock. However, based on the size of past studies this is expected to be minimal. If a more ambitious study is undertaken then grazing permittees could possibly experience increases or decreases in the number of livestock permitted. This will depend upon the type of study being undertaken. If a scientific study is proposed that will require the permittee to reduce their livestock by more than just a few head then additional environmental analysis and public disclosure will be required as either an environmental impact statement, environmental assessment, or a decision memo (Bangtail SIA EA Chapter 4.4.2). Livestock grazing will continue as in the past since conflicts between past scientific research projects and grazing has been minimal (Bangtail SIA EA Chapter 4.4.2).

4. The degree to which the effects of the decision on the quality of the human environment are likely to be controversial.

Seventy two letters were sent out during project scoping. Only four responses to scoping were received. During the 30 day comment period on the EA, only one comment letter was received. This indicates to me that the decision to graze livestock in the Bangtails is not controversial. Observations of past grazing, past and current monitoring, and utilization measurements over time, lead me to conclude that the effects of this decision are likely to be predictable and consistent with

the conclusions reached in the EA. There is no professional or scientific disagreement on the scope and effects of the selected alternative on the various resources. For these reasons, I conclude that there is not likely to be significant controversy over the degree to which this decision affects the quality of the human environment. This is further supported by a recent livestock grazing environmental analysis in the same general area that generated very little interest or controversy from the public (Northern Bridger Mountains Allotment Management Plan Update EIS 2007).

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

Livestock grazing is a common practice around the world and the effects related to grazing are common knowledge. Locally, the effects of past grazing on the allotments have been monitored for many years. The management actions proposed under my decision have been used in the past and have proven effective. Grazing within the estimated carrying capacities of the allotments, removing cattle when prescribed use levels are met, riding, mineral placement, and fencing, etc., are all tools to improve livestock distribution that will all allow for vigorous plant growth and the opportunity for plant recovery after grazing. Implementation of my decision includes grazing within Forest Plan standards in mid-elevation areas of known plant communities and capability. The grazing techniques and mitigation have proven effective in similar situations on other allotments. For these reasons, I conclude this decision will not present highly uncertain, unique, or unknown risks.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

My decision will allow grazing within the Bangtail Allotments under the conditions specified. The conditions of this decision allow for modifications in grazing in order to accommodate specific conditions unique to each of the allotments on a year-to-year basis. Continuation of grazing on the allotments in the future will depend on the site-specific conditions, achieving desired future conditions and objectives, and will be assessed through monitoring. I do not foresee that this decision establishes a precedent for any other future actions, nor does it represent a decision in principle about any other future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

The reasonably foreseeable cumulative effects of this decision are detailed in the EA (Chapter 4). From this analysis, I conclude that neither the effects of this decision itself, nor cumulative or linked effects of past, current, or reasonably foreseeable future actions appear likely to lead to any significant cumulative impacts.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in, or eligible for listing in, the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.

The Bangtail Allotments were reviewed for effects to cultural and historic properties. No districts, sites, highways, structures, or objects listed in or eligible for listing in, the National Register of Historic Places are present. Nor will this project cause loss or destruction of significant scientific, cultural, or historic resources.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

All alternatives considered would be consistent with laws, regulation, policy and direction currently in place for Threatened and Endangered (T&E) species. Threatened and Endangered species are largely absent from the Bangtail Range. Therefore, a no effect determination was concluded for listed species for all of the alternatives. Given the relatively small isolated nature of the Bangtail Mountains and marginal subalpine forest habitat for lynx it is likely that any future occupation of this range by these species would occur at very low levels compared to elsewhere on the Gallatin Forest. Since the U. S. Fish and Wildlife Service (USF&WS) considers the Bangtail Mountains as unoccupied by lynx a Biological Assessment for this project would determine that the proposed action would have no effect on any threatened or endangered species, and therefore there is no need for consultation with the USF&WS for this project. A more detailed analysis of T&E species is contained in the project files describing these conclusions (Project File - Wildlife Report).

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The applicable laws, regulations, and Forest Plan direction related to this decision are discussed in the EA Chapter 4.3.6. I find my decision to be fully in compliance with applicable laws and regulations and also consistent with the Gallatin Forest Plan Management Area direction for grazing.

1.11 Implementation

This decision will be implemented beginning in June of 2010.

1.12 Administrative Review or Appeal Opportunities

This decision is subject to appeal pursuant to 36 CFR 215.11. Only individuals or organizations that submitted comments during the 30 day comment period may appeal. A written appeal must be submitted within 45 days following the publication date of the legal notice of this decision in the Bozeman Chronicle, Bozeman, Montana. It is the responsibility of the appellant to ensure their appeal is received in a timely manner. The publication date of the legal notice of the decision in the newspaper of record is the *exclusive* means for calculating the time to file an appeal. Appellants should not rely on date or timeframe information provided by any other source.

Paper appeals must be submitted to: USDA Forest Service, Northern Region, ATTN: Appeal Deciding Officer, P.O. Box 7669, Missoula, MT 59807; or USDA Forest Service, Northern Region, ATTN: Appeal Deciding Officer, 200 East Broadway, Missoula, MT 59802. Office hours: 7:30 a.m. to 4:00 p.m. Fax (406) 329- 3411.

Electronic appeals must be submitted to: <appeals-northern-regional-office@fs.fed.us>. In electronic appeals, the subject line should contain the name of the project being appealed. An automated response will confirm your electronic appeal has been received. Electronic appeals must be submitted in MS Word, Word Perfect, or Rich Text Format (RTF).

It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why the decision should be reversed. The appeal must be filed with the Appeal Deciding Officer in writing. At a minimum, the appeal must meet the content requirements of 36 CFR 215.14, and include the following information: The appellant's name and address, with a telephone number, if available; A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal); When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request; the name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision; The regulation under which the appeal is being filed, when there is an option to appeal under either 36 CFR 215 or 36 CFR 251, subpart C; Any specific change(s) in the decision that the appellant seeks and rationale for those changes; Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement; Why the appellant believes the Responsible Official's decision failed to consider the substantive comments; and, How the appellant believes the decision specifically violates law, regulation, or policy.

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

Offer to Meet. When an appeal is received under this rule, the Responsible Official, or designee, must contact the appellant and offer to meet and discuss resolution of the issues raised in the appeal (36 CFR 215.17). If the appellant accepts the offer, the meeting must take place within 15 days after the closing date for filing an appeal (i.e. 45 to 60 days from the publication date of the legal notice of this decision in the Bozeman Chronicle). These meetings, if they take place, are open to the public. For information on if, when and where such a meeting is scheduled, please visit the following web site:

“www.fs.fed.us/r1/planning/final_appeals/current_appeals_and_objections.pdf”

1.13 Contact Person for Further Information

For further information regarding this project contact John Councilman, Interdisciplinary Team Leader, Bozeman Ranger District, 3710 Fallon Street Suite C, Bozeman, MT 59718, phone (406) 522-2533.

/s/ José Castro
JOSÉ CASTRO
District Ranger

Date 9/24/09

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require Alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Appendix - Response to 30 Day Comments

Comments from Western Watersheds Project	Forest Response
<p>1) At the outset, it should be noted that the EA does not pass the laugh test regarding what is being proposed. How can you pretend that you are informing the public when your document cannot even keep straight what you are proposing to do?</p> <p>The proposed action is called Alternative 2 or the “No Action” alternative meaning the District is proposing to implement the current grazing strategies.</p> <p>Two other alternatives were also analyzed. Alternative 1 proposes no grazing and Alternative 2 proposes to implement an adaptive management approach to grazing. All the alternatives are discussed in more detail in Chapter 2.</p> <p>A third alternative would implement adaptive management (Alternative 3). Forest Service direction is to implement adaptive management....</p> <p>So in the introductory section, you state that you are proposing to implement the no action alternative, or alternative 2, but then go on to describe the adaptive management alternative as alternative 2. The reader has to wade through another seventeen pages or so before learning that the adaptive management alternative is actually the proposed action. So right off the bat you have defeated the very purpose of NEPA to inform the public about what is being proposed. Does anyone there even READ these documents before releasing them to the public?</p> <p>WWP objects to the form of the EA as not meeting the public participation requirements of NEPA, as specified in the CEQ regulations. WWP is prejudiced by the completely misleading statements in the EA referenced above, as we wasted many hours analyzing an alternative identified as the proposed alternative when, in fact, that was just a wild goose chase designed by the agency’s incompetence (we are giving you the</p>	<p>There were some typos that mislabeled Alternatives 2 and 3 in the EA. For example there is a typo in paragraph 1 page 1-4 of the EA. It reads:</p> <p>“Two other alternatives were also analyzed. Alternative 1 proposes no grazing and Alternative 2 proposes to implement an adaptive management approach to grazing. All the alternatives are discussed in more detail in Chapter 2.”</p> <p>This should read : “....Alternative 3 proposes to implement an adaptive management approach to grazing....”</p> <p>There is also a typo in a heading on EA page 4-5 that states “<i>Alternative 3 (Proposed Action)</i>” And on the top of EA page 4-12 Alternative 3 is again identified as the proposed action.</p> <p>We apologize if this was misleading. These were simple typos that were not detected during proofreading.</p>

Comments from Western Watersheds Project	Forest Response
<p>benefit of the doubt in ruling out the possibility that this was a product of intelligent design). WWP requests that the EA be re-issued after the agency has had an opportunity to proof-read it and eliminate all the contradictions and misleading statements, with a new comment period. If the agency denies this request, then WWP cannot be faulted for any omissions from its comments, whether in the form of issues or arguments that may later be raised.</p>	
<p>2) WWP supports a modified no-grazing alternative. The FS acknowledges that the roads are a big problem in the Bangtail Analysis Area, but does not include an alternative that would seek allocation of restoration funds to return the affected Sub-watersheds (in particular, those supporting sensitive trout species trending towards listing under the ESA) to properly functioning condition. This is a shovel-ready project, and seemingly an ideal opportunity to apply stimuli for the purpose of restoring healthy Yellowstone and Westslope cutthroat fisheries, consistent with GNF Plan forest-wide standard 6(a)(12) and controlling law. The Bangtail AMP is located in a highly valued environmental setting, and should receive priority for restoration funds. Thus, we request an EIS that includes a modified no-grazing, or restoration, alternative that considers closing down at least those Sub-watersheds with sensitive fish species and restoring them to high quality conditions by, e.g., ripping out the offending roads and allowing the riparian areas to recover naturally.</p>	<p>The Forest has completed substantial restoration work in the Bangtail Mountains. This started with the Gallatin Land Consolidation Act of 1998 that consolidated mixed ownerships into National Forest System Lands. Then, in June of 2006 the Bozeman Ranger District Signed the decision for the Bangtail Mountains Road Decommissioning Project (DN/FONSI 2006). The purpose of the project was to reduce the level of sediment entering streams attributable to roads on National Forest System Lands in the Bangtail Mountains to bring area streams into compliance with Gallatin Forest Plan and Clean Water Act Standards (Bangtail Road Decommissioning EA 2006, Chapter 1). Most the roads proposed for decommissioning were constructed by private logging companies when the lands were privately owned. Alternative B was selected. It maximized the miles of roads scheduled to be decommissioned in the Gallatin Travel Management Plan EIS (2007). Over 47 miles of roads and 1.2 miles of non-system user built ATV trails were decommissioned under this decision. Follow-up treatments and monitoring are ongoing to insure the decommissioning has been effective. Extensive road restoration to improve the hydrologic function has been completed in all those lands included in the Bangtail Allotments.</p> <p>EA page 2-17 describes objectives for restoring functioning and risk and non-functioning reaches of streams. These objectives will further contribute to hydrologic recovery.</p> <p>EA pages 4-7 through 4-9 table 4.1 identifies the</p>

Comments from Western Watersheds Project	Forest Response
	miles of decommissioned road in each allotment. Page 4-12 table 4.2 summarizes recovery under Alternative 3.
<p>3) We find the following statement from the Introduction inappropriate for lack of balance, and thus indicative of the kind of bias that should disqualify whoever is responsible for this statement from rendering the kind of unbiased decision required under NEPA:</p> <p>“The livestock industry has grazed domestic livestock on the lands included in these allotments probably since the late 1800s. Since this time there have been many changes in the type of livestock grazed, seasons of use, the economics of the industry, and the public perceptions of grazing on public lands.”</p> <p>WWP would point out there have been some changes in the law since the 1800s as well, and conspicuous by its absence from the above statement is changes in science and our understanding of the deleterious effects of livestock on wildlands and the wildlife that inhabit them. Public perceptions? How about scientific awareness? Please, if you are going to go back to the 1800s to justify continued grazing of an area where grazing is obviously inappropriate, include a section summarizing the evolution of science since the 1800s in relation to livestock and wildlife, and include the reasons why grazing is responsible for more species being listed as threatened and endangered than any other single factor.</p>	<p>This introductory statement was meant as just a general statement and was designed to point out that things have changed and have not remained static since the 1800s. This is further described in EA Chapter 3-32 through 3-37.</p>
<p>4) WWP also objects to the continuing reliance on a 22-year-old Forest Plan, when NFMA requires the resource decisions made in a forest plan to be reconsidered every 10-15 years based on lessons learned during implementation of the previous plan. If you have not been able to improve wildlife habitat and riparian areas in 22 years of grazing under the existing Plan, then obviously the decision to allocate the Bangtails to grazing was misinformed. Given that grazing is contributing to trends that will result in listing of fish and wildlife species as threatened and endangered (infra), due</p>	<p>EA Chapter 2.11, table 2.5 summarizes findings related to threatened, endangered and sensitive species. Alternative 3 will have no impact on those species. EA Chapter 2.6 describes those species of wildlife where effects will be none or negligible. EA Chapter 4.2.2 describes the effects in detail on those species on wildlife that will be affected.</p> <p>You are correct that the National Forest Management Act (NFMA) contained a requirement that Forest Plans be revised “from time to time when the Secretary finds conditions</p>

Comments from Western Watersheds Project	Forest Response
<p>to the cumulative effects of existing roads and continued grazing, then you either need to prepare an EIS that demonstrates exactly how you will recover these areas, or you need to cease and desist and allow the area to recover naturally over time.</p>	<p>in a unit have significantly changed, <u>but at least every fifteen years</u>” (16 USC 1604(f)(5)(A), emphasis added). You are also correct that the Gallatin Forest Plan, as well as many others across the nation, are now over 15 years old. Revision has not taken place primarily due to funding issues. This issue has been recognized and for a number of years Congress has included language in the annual appropriations bill which conditionally waives the 15 year limit. For fiscal year 2009, the agency is covered under the following language in the FY 2009 Omnibus Appropriations Bill.</p> <p><i>P.L. 111-8, Division E, Title IV, SEC. 410. Prior to October 1, 2009, the Secretary of Agriculture shall not be considered to be in violation of subparagraph 6(f)(5)(A) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1604(f)(5)(A)) solely because more than 15 years have passed without revision of the plan for a unit of the National Forest System. Nothing in this section exempts the Secretary from any other requirement of the Forest and Rangeland Renewable Resources Planning Act (16 U.S.C. 1600 et seq.) or any other law: Provided, That if the Secretary is not acting expeditiously and in good faith, within the funding available, to revise a plan for a unit of the National Forest System, this section shall be void with respect to such plan and a court of proper jurisdiction may order completion of the plan on an accelerated basis.</i></p> <p>It should be noted that while the Gallatin Forest Plan has not been revised, it has been amended a number of times to correct ineffective and outdated direction.</p>
<p>5) One area that is especially lacking in adequate disclosure and analysis is the cumulative impact of grazing on riparian areas. Only at the very end of</p>	<p>EA Chapter 4.2.1 pages 4-1through 4-12 describes the effects on stream channel form and function. As part of the riparian area, stream channel form</p>

Comments from Western Watersheds Project	Forest Response
<p>the discussion of this issue does the EA actually reveal the Forest Plan standard: “The Gallatin Forest Plan (USDA 1987) identifies riparian habitat as Management Area 7 (MA 7). Forest Plan standards for MA 7 require us to maintain suitable habitats for those species of birds, mammals, and fish that are totally or partially dependent upon riparian areas for their existence (Forest Plan III-19).” EA, 3-30. You do not explain how you are actually complying with this standard.</p>	<p>and function was evaluated. Compliance with laws and regulations is described at bottom of EA page 4-11.</p> <p>EA Chapter 4.2.3 page 4-24 through 4-26 describes the effects on riparian area vegetation. Compliance with the Forest Plan is summarized in Chapter 4.3.6, table 4.8. Compliance with the Forest Plan Management Direction for riparian areas is described on EA pages 4-46 and 4-47.</p>
<p>6) Worse, while devoting approximately 8 pages to all the science about how grazing adversely impacts migratory birds, the only statement anywhere in this discussion that is specific to the Bangtail area is that it has been grazed for decades (not centuries?). This is not a description of the “affected environment” (i.e., existing conditions) required by NEPA as the starting point for analysis. Rather, it is a description of the best available science on environmental impacts. Apparently, it will take an EIS for you to actually apply this science to the activity areas under consideration. “Nearly 50 percent of breeding bird species in the western U.S. nest only in riparian vegetation types, including 45 percent of 235 known breeding species in Montana.” Skagen et al. A recent report by Montana Audubon and US Fish and Wildlife Service showed a “startling decline” in Montana bird species dependent on riparian areas over the last 50 years. In a 2004 study by Montana Natural Heritage Program of grazing impacts on the Missouri River, researchers found that the vegetative diversity so critical to wildlife - including redosier dogwood, serviceberry, chokecherry, currant, and gooseberry - has been almost completely eliminated by grazing of riparian areas. WWP suspects that similar impacts are occurring in the Bangtail allotments, but the extent of disclosure of impacts on riparian areas in the analysis area is that “out of the estimated total of 477 acres of riparian habitat, 245 acres are accessed by livestock or about 51 percent,” and “[s]ince no additional measures would be implemented... to relieve [livestock] use along</p>	<p>EA page 4-12 Summary Conclusion (stream recovery). EA pages 4-24 to 4-26: Effects on Riparian Vegetation.</p> <p>Effects to migratory birds, including effects assessment for riparian habitat conditions and cumulative effects over time were addressed on EA pages 4-17 through 4-20. Summary Conclusion (EA p. 4-19) references Forest Plan direction for MA 7 (riparian areas). <i>Applicable Laws, Regulation, Policy & Direction</i> (EA page 3-30) addresses EO 13186, and associated requirements to evaluate effects of federal actions on migratory birds, with emphasis on species of concern.</p> <p>Methodology (EA page 4-17) references Montana Natural Heritage Program and Montana Fish Wildlife and Parks “Species of Concern” lists for birds. No riparian-dependent species were included on these lists (project file) at the time the Bangtail wildlife analysis was conducted.</p>

Comments from Western Watersheds Project	Forest Response
<p>streams, riparian areas that are currently impacted by livestock grazing would not recover.” This is not only inadequate information upon which to base an impact analysis, it is unacceptable under the Forest Plan, as it does not conform to the riparian standards. In the EIS, please specify the cumulative impacts of grazing in the Bangtails on “suitable habitats for those species of birds, mammals, and fish that are totally or partially dependent upon riparian areas for their existence.”</p>	
<p>7) The cumulative impacts of grazing and sub-standard roads in Bangtail, Willow and Perkins Creeks are contributing towards the listing of Yellowstone cutthroat trout (YCT) under the ESA, and you must take immediate action to reverse the existing trends. Bangtail and Willow Creek Sub-watersheds are in particular need of restoration, according to your own data and due to grazing impacts. Tables 3-5, 3-6. You acknowledge that one of the problems is compacted soils on roads, and studies by USFS soils scientists are clear that "[g]razing can cause harmful levels of soil compaction that are [similar to the] long-term detrimental soil effects" from logging. (USFS, Bitterroot NF DEIS, Middle East Fork Hazardous Fuel Reduction Project). As the Bitterroot NF's long-time soils scientist recognized in that same document:</p>	<p>Refer to the response to Comment #2. WWP notes that compacted soils on roads are a problem. This is a true statement and is part of the reason why a substantial amount of forest roads are decommissioned in the Bangtail Mountains (Bangtail Road Decommissioning EA 2006, Chapter 1). In the same sentence, WWP notes that “grazing can cause harmful levels of soil compaction that are (similar to the) long-term detrimental soil effects” from logging, citing results in the Bitterroot NF DEIS for Middle East Fork Hazardous Fuel Reduction Project. Once again this is a true statement but only in a general sense. It should be noted that compaction from cow hooves differs from that of road construction in terms of the degree and longevity of compaction impacts.</p> <p>There are currently no specific criteria for cattle grazing with respect to the allowable level of detrimental soil disturbance (DSD) in Region One. As a result, Region One guidance on this issue is limited to the R-1 Supplement 2500-99-1 to Forest Service Manual (FSM) 2500 – Watershed and Air Management section. The accepted standard in Region One is that the level of detrimental soil disturbance from management activities, past and present, needs to be restricted to 15 percent or less. Provisions in the R-1 Supplement (2500-99-1) indicate how both past and present disturbances are to be handled.</p> <p>To date, the 15 percent detrimental soil disturbance criteria has been applied primarily to timber harvesting activities. There does not appear</p>

Comments from Western Watersheds Project	Forest Response
	<p>to be a reason why this standard could not be used to assess cattle impacts as well. Timber harvesting activities with road building, skidding logs, and prescribed burning, however, have a much greater potential to create detrimental soil disturbance over large areas. It is our understanding after consultation with the Region 1 Soil Scientist that we would use the R1 Supplement/15% standard in this case. Dispersed cattle grazing does not lead to exceeding that standard. As such, it appears highly unlikely that the cumulative detrimental soil disturbance resulting from the proposed action will come close to the 15% threshold except in limited, small areas where cattle congregate (EA page 2-2).</p> <p>Several factors in the Bangtail Allotment will help limit the extent of detrimental soil disturbance due to grazing. First off is the timing of grazing. Grazing in all subunits of the allotment is planned for the period of July through September. Conditions in most years are quite dry during this time. Soil compaction becomes a greater issue when soils are wet and thus the period of grazing is designed to minimize potential soil compaction. At the same time, road decommissioning in the Bangtail Allotment area, will reduce the overall level of detrimental disturbance to the soil resource.</p> <p>The high proportion of soils with abundant rock fragments in the Bangtail area also limits the potential for soil compaction. Lack of any extensive acreages of somewhat poorly, poorly, or very poorly drained soils, associated with shallow groundwater conditions, similarly limits the potential for detrimental soil disturbance.</p>

Comments from Western Watersheds Project	Forest Response
<p>8) Soil compaction, displacement and puddling are long-term effects on the soil resource; the effects typically last several to many decades since soils form and heal very slowly...</p> <p>At a larger scale, the accumulation of soil damage within subwatersheds can reach critical levels in which the ecological and hydrological functioning of those larger geographical areas is seriously degraded. Again, the very slow rates of soil recovery have much to do with these cumulative effects. In this sense, soils are not a replaceable resource in human time scales.</p> <p>According to the Caribou NF Riparian Grazing Guide, p. 26: “Forest Service Handbook 2209.21 also describes effects of livestock on soils. The handbook describes two major effects: disturbance of litter, and compaction. Some results of compaction are reduced infiltration capacity and slower water movement in the soil, an increase in surface runoff, accelerated soil erosion and reduced pore space which restricts air circulation, resulting in poor aeration of the plant roots. Willoughby (1997), and Scholl (1989) have shown that the main factors related to declines in soil productivity are losses in site organic matter and soil porosity. Livestock have been observed to adversely affect both factors (Scholl 1989; Warren et al 1986).”</p>	<p>It is agreed that some severe soil compaction can last for a long time. Soil displacement, except under extreme conditions, is not a significant factor related to cattle grazing and would have little or no impact on site productivity. Freeze-thaw and wet-dry cycles as well as soil mixing by micro and macro-fauna all reduce soil compaction over time. The statement that “soils are not a replaceable resource in human time scales” does not apply to soil compaction. It only applies if the soil resource were lost due to excessive soil erosion or severe degradation such as might result from mining or smelting activities. The level of soil compaction associated with cattle grazing does not come close to those extreme impacts. The detailed list of potential compaction effects on soils in WWP’s comment #8 appears to have been taken from an Introductory Soils textbook. As such, it is correct in terms of general principles. It does not address whether or not the 15% detrimental soil disturbance threshold used in Region 1 will be exceeded by the proposed activity. It is highly unlikely, based on reasons stated above, that detrimental disturbance in the Bangtail Allotment will come close to exceeding the 15% threshold for detrimental soil disturbance.</p>
<p>9) “Scholl (1989) concluded that all soil textural classes except sand show significant compaction from trampling in both spring and fall, with a tendency for spring trampling to cause greater compaction. However, coarse-textured soils appear to be least susceptible to bulk density increases, while fine-textured soils appear to be most susceptible. Therefore riparian areas containing fine-textured soils should have limited wet-season grazing. Grazing impacts on other soils should be limited to the capacities of the soils and associated vegetation to withstand the influences of trampling and compaction. The R4 guidelines offer such limitations.” Id., pp. 26-27.</p>	<p>WWP’s statements about soil texture influences on compaction and the greater likelihood of compaction during the spring are correct. It is an incorrect statement to suggest that riparian areas always have finer-textured soils. Region 1 guidelines apply in this case, not Region Four guidelines. Region 1 guidelines are based on the occurrence of detrimental soil disturbance and whether the 15% threshold has been exceeded. The likelihood of exceeding this threshold due to compaction from cattle grazing based on the proposed management plan is extremely unlikely except for small areas of less than one quarter acre in size where cattle congregate, such as near salt</p>

Comments from Western Watersheds Project	Forest Response
<p>WWP objects to the absence of data, including transect data, measuring cumulative soil disturbance from historic logging, roads, and grazing, and demonstrating compliance with the regional standards. NFMA prohibits the FS from permitting activities that will result in irreversible losses in soil productivity, and the regional standards establish thresholds that, when exceeded, are presumed to be irreversible. This is yet another reason why an EIS needs to be prepared for the Bangtail AMP.</p>	<p>licks. Soils criteria for Region 1 do not include criteria for the vegetation's capacity "to withstand the influences of trampling and compaction". The WWP has every right to object to the lack of data on cumulative soil disturbance effects. The use of transects, however, are not required so long as the level of detrimental soil disturbance does not approach the 15% threshold. As stated previously, the likelihood that this is the case is extremely remote for cattle grazing on large allotments. Statements that "irreversible losses in soil productivity" would occur if the regional standards were exceeded are unfounded so long as the underlying soil resource is not lost due to excessive soil erosion. There are plenty of examples in mineland reclamation where highly disturbed and compacted minesoils have been shown to out produce local undisturbed native range sites.</p>
<p>10) On a recent field inspection of the Middle Fork Willow Creek allotment, WWP fisheries expert noted that the culvert at the lower reach of that allotment (just above the FS boundary) is creating big problems, and may be one of the primary factors in the absence of a fishery from what the EA acknowledges should be good fish habitat. This culvert either needs to be replaced with an arched bridge, or the crossing itself needs to be eliminated. Due to the condition of the roads, we were not able to visit all the sites, but it is not unreasonable to presume that there are many other culverts like this one in the Analysis Area. Please include an inventory of culverts and stream crossings in the requested EIS, and disclose/analyze the adequacy of these culverts/crossings and the impacts such structures are having on the fisheries.</p>	<p>The only known culverts within the Willow Creek and Bangtail Creek allotments are located along fishless intermittent tributaries. The EA goes on to describe the status of Yellowstone cutthroat trout (YCT) populations in both Bangtail Creek and North Fork Willow Creek. YCT are absent from the Middle Fork Willow Creek and South Fork Willow Creek. The absence of YCT from these streams is most likely a result of the small size of these headwater streams. Most likely the culvert that the WWP expert is referring to is located below the Forest boundary along a section of county road. The Gallatin National Forest has been in continued contact with Park County road department regarding the replacement of this culvert. In summary, there are no road culverts located along perennial fish bearing streams within the Bangtail and Willow Creek allotments.</p>
<p>11) WWP objects to statements like the following one, which is relevant to a YCT fishery (Bangtail Creek): "It is believed that the current stream channel conditions are a cumulative result of several past activities not just livestock grazing."</p>	<p>EA pages 3-14 and 3-15 states " It is unknown if this dewatering occurs naturally or it is a legacy affect from past timber harvesting or possibly a result of increased timber stand density within unlogged portions of the drainage." The EA does not attribute reduced water flows to grazing.</p>

Comments from Western Watersheds Project	Forest Response
<p>EA, 3-14. See, also: 3-15 (Willow Creek). Just because the impacts from livestock grazing are cumulative impacts does not excuse the continuing impacts from grazing, especially in a fishery that is not properly functioning due to cumulative impacts, to the point that it is now drying up in the summer, and especially where grazing is the only activity that is currently within the agency's control. However, if there is a theme to this EA, it seems to be that any problems are not solely due to grazing, and since grazing has been going on here for at least decades, if not centuries, then it is not politically prudent to eliminate grazing in order to allow these problem areas to recover. While grazing may not be the sole source of the problem, your own limited restoration activities prove that eliminating grazing is the solution to the problems in fisheries like Bangtail and Willow Creeks. EA-15 (exclosed riparian areas returned to PFC). Clearly, the exclosures need to be expanded into Sub-basin wide exclusions</p>	<p>Extensive restoration efforts have been completed or are ongoing (Response to Comment #2). Besides road decommissioning, activities such as riparian exclosures, stream bank stabilization projects, large woody debris recruitment, culvert removal, have all been implemented over the last 15 years. These are working and will continue to improve long-term stream channel conditions. Planned and potential management actions included in Alternative 3 would contribute to stream recovery. EA page 2- 16 and EA Appendix 2 allow for the additional construction of exclosures, streambank stabilization and even the removal of livestock as management actions that would be employed as needed. Also, the same stream bank alteration standards that are proposed under Alternative 3 have been experimentally implemented over the last five years along the North Fork Willow Creek. Subsequently, improved trends in stream channel function have been observed from these standards. It is expected that the same trends would result along Bangtail Creek. As noted in the EA, exclosures work to restore non-functioning and functioning at risk stream reaches. This strategy will be implemented as needed when other management actions do not work. As a result, EA page 4-11 indicates that Alternative 3 would result in the recovery of stream segments that have been degraded either entirely or partially by livestock. Because we anticipate the recovery of degraded stream segments and because we know from on-site experience that exclosures work we do not see a need to completely remove livestock from an entire sub-basin. Together, improved flow regimes and narrower, deeper stream channels will most likely keep water in these presently dewatered stream reaches including during the late-summer months.</p>
<p>12) You are prohibited by your own laws and regulations from permitting activities that will contribute to a trend towards listing of species as threatened or endangered, and there is no exception in that law for activities that have been permitted for decades or centuries. The Secretary</p>	<p>The water quality issue is described on EA pages 2-2 to 2-4. The cumulative water effects of logging are steadily declining in the Bangtails as previous harvest units are reforested and excess logging roads are now stabilized and decommissioned. Objective 2 (EA page 2-17) is</p>

Comments from Western Watersheds Project	Forest Response
<p>of Agriculture recently stated that the FS is in the business of providing clean waters from healthy watersheds, and this means eliminating grazing from watersheds that should have thriving fisheries but are deteriorating because of the cumulative impacts of logging and grazing. How about a “healthy watershed” alternative?</p>	<p>designed to establish a positive trend for riparian vegetation and provides for stream form and function baseline monitoring and positive trend definitions.</p>
<p>13) How is it that there are concerns with Brewer’s Sparrow associated with grazing and sagebrush habitat, but no mention of sage grouse anywhere in the EA? Is there a viable population of sage grouse in this isolated mountain range, and if not, why not? Has there ever been? If so, when were they eliminated and to what was their eradication attributed?</p>	<p>Sage grouse are not present on National Forest System lands in the Bangtail Allotments because suitable habitat is not present. There is no known history of sage grouse presence on NFS lands within the Bangtail allotments (FWP concurrence memo - Project File Wildlife)</p>
<p>14) What does it mean when the EA notes that some waters are “too cold” for cold water fisheries? WWP’s fisheries expert, a former USFWS fisheries biologist, is unfamiliar with this novel concept, and would appreciate citations to the science your fisheries expert is relying on when making such a statement.</p>	<p>This comment refers to Item 2 in the EA on page 3-6. This was an incorrect generalization in the EA and was written assuming that the same situation we have in other areas of the District is true for the Bangtails; that some streams are too cold to support fisheries. For example, Mill Creek in the nearby Bridger Mountain Range was found to have this temperature condition and was passed up for cutthroat introduction (North Bridgers EIS 2007).</p> <p>Water temperature limitations are evidenced by recent westslope cutthroat trout (WCT) recovery efforts in the Elkhorn Mountains. Montana Fish, Wildlife, and Parks (MFWP) fish biologists are finding that fishless or barren streams that have been introduced with WCT with a mean August water temperature of less than 45° F are not allowing the establishment of fish populations (Lee Nelson, MFWP, personal communications). This is also supported in the literature by Coleman and Fausch (Transactions of the American Fisheries Society 136:1231-1244, 2007) regarding cutthroat trout in Colorado.</p>
<p>15) Concerning use of “adaptive management,” isn’t that what NFMA requires Forest Plans to be based upon? You have a 22 year-old forest plan, and you are just now getting around to proposing adaptive management for this sub-standard allotment? Given how long the forest plan has</p>	<p>In response to the fact that the Forest Plan is now 22 years old please see the response to comment #4.</p>

Comments from Western Watersheds Project	Forest Response
<p>been in place, WWP would suggest that the appropriate adaptation of management at this late stage would be to simply exclude grazing from those Sub-basins that are still not meeting standards, allow them to recover to PFC and riparian health, and then prepare an EIS before considering re-introduction of any undesirable non-native domestic, destructive species into the basins.</p>	
<p>16) In conclusion, it is not reasonable to expect an interested member of the public to read a 177 page EA from cover-to-cover, and due to limited administrative resources, WWP is not in a position to read every grazing EA in Montana in this way. With experience in such matters, most citizens like WWP tend to read those portions of the NEPA document that are relevant to their concerns, and that are relevant to the proposed alternative, in order to glean the agency's rationale and decision-making criteria. Due to the gross incompetence exhibited in this EA, we were mislead into wasting many hours analyzing an alternative that was identified up front as the proposed alternative, but in fact is not being considered, and have now run out of time and must submit these comments. We attempted to contact the contact-person for this EA, but he was not available and did not return our calls. Thus, while we have touched on our primary concerns with this proposal, we have not had a fair opportunity to analyze the document in detail. We would also point out that the EA was not even available at the beginning of the 30-day comment period, and was not actually posted until several days into the comment period. All this is stated simply to support our rights in reserving the opportunity to raise new issues and arguments at later stages in this process, including and up to appeals and litigation.</p>	<p>We apologize about the typo described in the Response to Comment #1. The length of our documents is largely a result of the public demanding more and more information about projects. For example Western Watersheds requests we complete an EIS instead of an EA. This could double the expense and size of the document for a project that only generated one comment letter.</p> <p>The person responsible for this document received your call after returning from the field on August 26 the day all comments were due. Western Watersheds was emailed a pdf copy of the EA on July 27. This was one day prior to the start of the official comment period. The EA was posted and available on the Forest's website on July 29.</p>